

A Survey of Digital Literacy Among Counselling Psychology Teachers in Southwestern Nigeria Universities

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The European Conference on Education 2025
Official Conference Proceedings

Abstract

Digital literacy of counselling psychology teachers in southwestern Nigerian universities was examined in this study. Two hundred and twelve counselling psychology teachers were drawn. Their ages ranged from 20 to 60 years, with a mean age of 30 years. Son et al. (2011) questionnaire was the outcome measure. Results show that 42.9% of the respondents have 1–5 years' experience using computers in the classroom despite 11 to 15 years teaching experience. Ownership of notebook PCs was highest (86.0%), followed by Tablets (58.5%). The majority of the respondents learnt computer skills using informal approaches. Most of the respondents considered their computer literacy, internet literacy and typing speed good. Majority (97.2%) indicated they used the internet all the time. Most respondents judged themselves to be intermediate for a range of applications. Overall, the use of digital tools to augment teaching was low. Only 42, representing 22.2% of the respondents used digital tools in their classroom. Lack of computer skills and limited access to the internet were two impediments to the use of digital tools in the classroom. Majority of the teachers have positive perceptions concerning the use of instruction. Addressing the identified skill gaps through targeted professional development, embedded digital literacy modules, and institutional support were recommended.

Keywords: teacher digital literacy, counselling psychology teachers in Nigeria, computer in teaching

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Introduction

In the 21st century, technology has become embedded in nearly every aspect of counselling practice, from appointment scheduling and case documentation to client communication and service delivery. In Nigeria, studies have identified a significant deficit in digital literacy among various professional groups, including counselling psychology teachers (Asemewalen, 2025; Ayodeji, 2025). This corroborates De Simone and Manolio (2024) who reported that only 9 percent of Nigerians surveyed in their study used a computer in the last three months, with men using it twice as much as women. Similarly, National Information Technology Development Agency (NITDA) director disclosed that the Nigeria digital literacy rate stands at 50 percent as at 2024. According to the United Nations Educational, Scientific and Cultural Organization (UNESCO), digital skills are the ability to access, manage, understand, integrate, communicate, evaluate, and create information safely and appropriately through digital technologies for employment, decent jobs, and entrepreneurship (UNESCO Institute for Statistics, 2018). In the context of guidance and counselling, digital literacy involves the integration of technology into professional practice (Carretero et al., 2017; Ofole & Ohakwe, 2021).

Digital skills play a pivotal role in the modern world, shaping both individual opportunities and societal progress. Proficiency in digital skills is increasingly recognized as a fundamental requirement for active participation in various aspects of life, including education, employment, and social interaction. Arifin et al. (2025) emphasised that addressing digital literacy gaps is critical to enhancing the professional performance of counselling educators and enabling their effective participation in the digital age. Evidence indicates that technology can provide flexible and tailored mental health support, reduce barriers to accessing care, and generate valuable insights into mental health trends at both individual and population levels (Löchner et al., 2025; Torous et al., 2025). Digital literacy is therefore essential for counsellors and psychotherapists to navigate digital environments, deliver evidence-based and accessible services, and uphold client safety and privacy—particularly for Generation Z and Millennial clients, whose ICT experiences and skills differ significantly from those of previous generations. Research consistently emphasises the need for guidance and counselling educators to possess strong computer skills to equip future counsellors with the competencies required for effective technology integration in practice, as teachers' digital competence directly influences student learning outcomes (Tran et al., 2024).

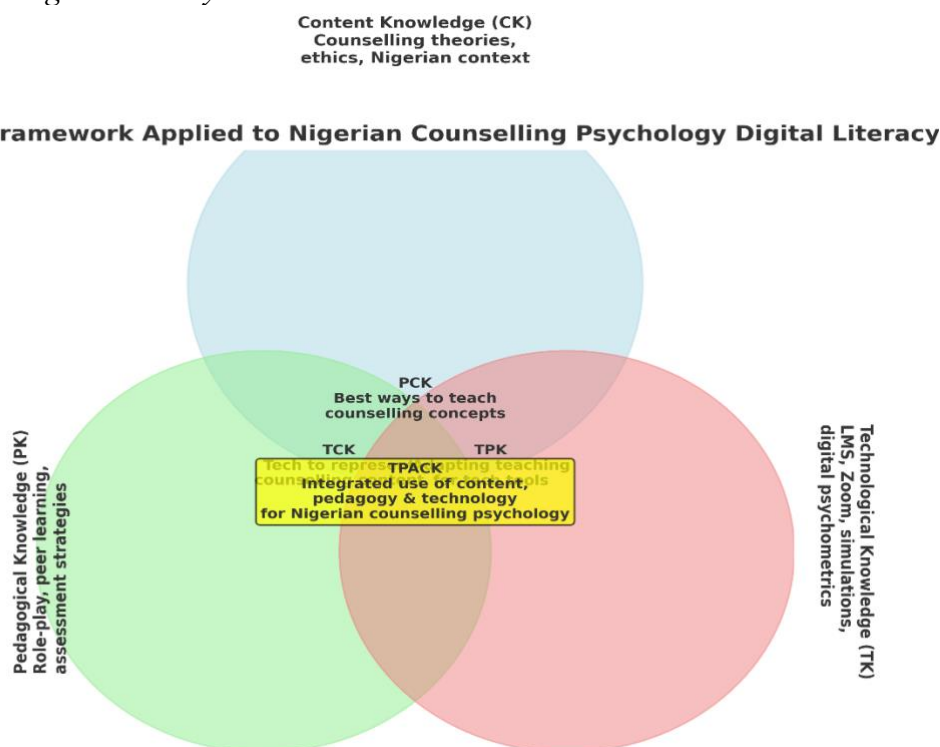
A systematic review of the literature reveals the existence of multiple frameworks for defining and assessing digital literacy. While they share certain similarities, each has distinct features, strengths, and limitations. Some models focus primarily on technical competencies, such as computer and ICT skills (Martin, 2006), whereas others incorporate social and cultural dimensions (Chen, 2015; Ng, 2012). Eshet-Alkalai and Amichai-Hamburger (2004) conceptualise digital literacy as a broad set of cognitive, motor, sociological, and emotional skills needed to function effectively in digital environments, extending beyond the mere operation of software and devices. Martin (2006) proposed three progressive levels—digital competence, digital usage, and digital transformation—representing a shift from basic proficiency to advanced, creative applications. Bawden's (2008) framework identifies four components: underpinnings (traditional and ICT literacy), background knowledge of information resources, central competences (knowledge assembly), attitudes and perspectives (independent learning, moral/social literacy). Ng's (2012) model emphasises three dimensions, including socio-emotional factors, while Spires et al. (2019), adapting Spires and Bartlett (2012), classify digital literacy into searching and using, creating, and

communicating with digital tools. Gruszczynska et al. (2013) describe it from two perspectives: access, skills, and practices, and the contexts in which they occur. Chen's (2015) "9 Cs" framework encompasses communication, collaboration, critical thinking, creativity, citizenship, character, curation, copyright, and connectedness. The European Commission's Digital Competence Framework (DigComp) identifies five competence areas and 21 specific skills across eight proficiency levels, providing a basis for teacher development and guiding the integration of technology into education (Carretero et al., 2017). The National Digital Literacy Framework (NDLF), developed by the National Information Technology Development Agency (NITDA), provides a structured roadmap for advancing digital literacy in Nigeria. It emphasises six core competency areas, namely device and software operations, information and data literacy, communication and collaboration, digital content creation, cybersecurity and online safety, as well as digital problem solving.

This study is grounded in the Technological Pedagogical Content Knowledge (TPACK) framework (Carretero et al., 2017), which posits that effective teaching with technology requires the integration of specific technological tools—such as hardware, software, applications, and information literacy practices—to prepare both pre-service and in-service teachers to guide students toward a deeper understanding of subject matter. The framework combines three core domains of knowledge: Technological Knowledge (TK), Pedagogical Knowledge (PK), and Content Knowledge (CK), which can be integrated in various ways. Within this study, three combinations are particularly relevant: (i) Technological Content Knowledge (TCK), which refers to knowing which technologies best represent and enhance counselling psychology content (e.g., using simulation software for role-play in counselling sessions); (ii) Technological Pedagogical Knowledge (TPK), which involves understanding how counselling teaching methods can be adapted through technology (e.g., implementing a flipped classroom model with pre-recorded lectures on therapy techniques); and (iii) Pedagogical Content Knowledge (PCK), which relates to knowing the most effective teaching methods for counselling psychology concepts without necessarily involving technology. The relationship between this framework and counselling psychology teachers' digital literacy is illustrated in Figure 1.

Figure 1

Technological Pedagogical Content Knowledge (Tpack) Model for Counselling Psychology Teachers' Digital Literacy



Purpose of the Study

The broad purpose of the study is to assess the digital literacy of Counselling Psychology teachers in universities in Southwestern Nigeria. Specifically, the study was designed:

- i. To assess counselling psychology teachers' experience with using computers to teach counselling courses;
- ii. To explore the types of computers the counselling psychology teachers owned;
- iii. To explore how counselling psychology teachers acquired their computer and digital competencies;
- iv. To identify counselling psychology teachers' self-assessment of computer and internet usage;
- v. To investigate counselling teachers' assessment of usage of computer application;
- vi. To analyze counselling psychology self-assessment of experience with popular software application;
- vii. To identify extent counselling psychology teachers, integrate computers into teaching;
- viii. To analyse factors influencing the use of computers in teaching counselling courses;
- ix. To explore counselling psychology teachers' perceptions of computers and the use of technology for teaching.

Materials and Methods

Design

The design adopted for this study is a descriptive survey. It systematically described the issues of digital literacy of counselling psychology teachers.

Participants

The study sample comprised 212 counselling psychology teachers, of whom 118 (55.7%) were female and 94 (44.3%) males, with a mean age of 30 years. Age distribution showed 32.5% aged 34–40 years, 25.5% aged 41–47 years, and 5.2% aged 20–26 years. Most participants were married (79.2%), while 16.5% were single and 4.3% widowed. Teaching experience varied, with 42.9% having 11–15 years, 26.9% having 6–10 years, and 14.6% having less than 5 years. In terms of qualifications, 83.0% held a PhD and 17.0% a Master's degree in Counselling Psychology. Institutional affiliation indicated 68.4% teaches in public universities and 31.6% in private institutions.

Measure

A 52-item digital literacy questionnaire, adapted from Son et al. (2011), was employed to evaluate participants' computer access, competence, and usage in both personal and professional settings. The tool addressed six key areas: socio-demographic information, attitudes toward technology, participation in technology-based learning, engagement with technology, perceptions of technology use, and attitudes toward barriers to integration. Items were revised to align with counselling-related activities and updated to incorporate emerging practices such as cloud computing and file-sharing services. The instrument showed strong reliability, with an overall reliability coefficient of $r = 0.80$ and Cronbach's alpha values ranging from 0.75 to 0.83 across its subscales.

Data Collection and Analysis

Between December 2024 and January 2025, data were collected from counselling psychology teachers who met the inclusion criteria of holding at least a Master's degree, teaching GCE 101–103, owning a personal computer, and providing consent. Trained research assistants distributed questionnaires in participating institutions, with completed forms retrieved after one week. Data from the digital literacy questionnaire were analysed using descriptive statistics, summarised in frequencies and percentages, and presented in tables and charts.

Results

In line with the study's purpose and the volume of data collected, all questionnaire responses are presented as follows:

Experience Using Computers in the Classroom

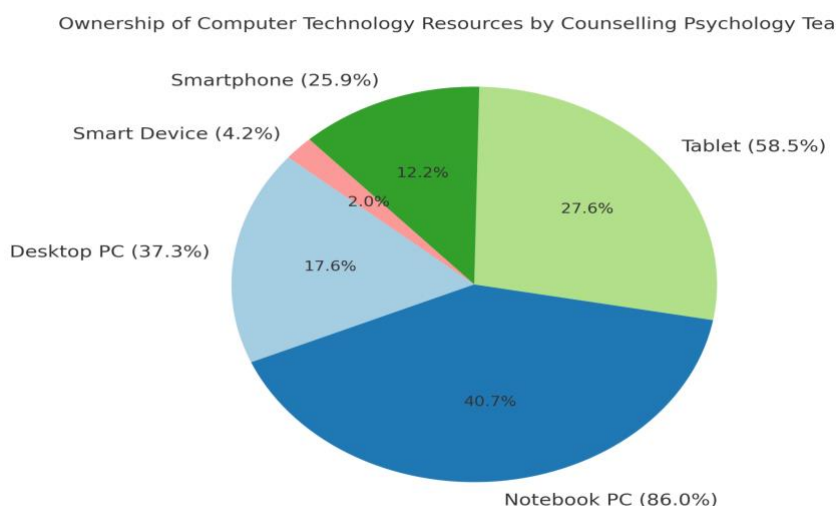
Table 1 presents the findings on counselling psychology teachers' experience with using computers to teach counselling courses. The results indicate that, although a significant proportion of the teachers (42.9%) had extensive teaching experience (11–15 years), only 14.1 out of the 42.9% reported to have integrated computers into their classroom instruction. This suggests that long years of teaching experience do not necessarily translate into technological proficiency, and highlights a potential gap in the adoption of digital tools for teaching counselling courses.

Table 1*Teachers' Experience Using Computers in Teaching Counselling Courses*

Year of Teaching Experience	Frequency	Percent (%)
1-5 years	91	42.9
6 - 10 years	57	26.9
11 - 15 years	30	14.1
15-20 years	28	13.2
21 years and above	06	2.8
Total	212	100

Types of Computer Ownership

When asked to indicate the computer technology resources they possessed, the results revealed that most teachers owned various types of digital devices. A large majority (86.0%) had a notebook PC, while more than half (58.5%) owned a tablet. Fewer than half reported having a desktop PC (37.3%) or a smartphone (25.9%), and only nine respondents (4.2%) possessed a smart device. These findings are presented in Figure 1.

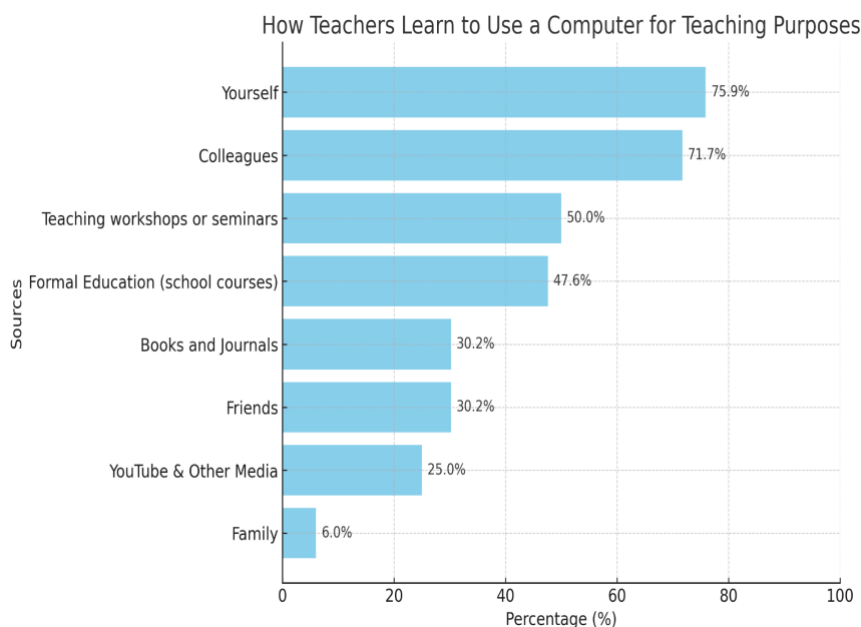
Figure 1*Digital Device Ownership***Acquisition of Digital Skills**

The responses obtained revealed that teachers acquired their computer skills through a variety of sources, with informal learning methods emerging as the most common. A significant majority (75.9%) reported being self-taught, while nearly as many as 71.7% learnt from their colleagues. Half of the teachers indicated receiving training through workshops or seminars,

and almost half (47.6%) developed skills as part of their counsellor training coursework. Less common were skills acquired through YouTube tutorials (25.0%) or from family members (6.0%). These patterns suggest that teachers often rely heavily on personal initiative and peer support to build their digital competencies.

Figure 2

How Counselling Psychology Teachers for Teaching Purposes



Counselling Psychology Teachers' Self-Assessment of Computer and Internet Usage

When asked to rate their digital skills on a four-point scale, the result presented in Table 2 shows that most respondent described their abilities as “good.” Just over half (50.5%) considered their computer literacy to be good, and an equal number (50.0%) rated their internet literacy at the same level. Typing speed received slightly lower ratings, with 40.6% describing it as good. Excellence was far less common across all categories, with only 11.8% rating their computer literacy as excellent, 22.6% for internet literacy, and 23.6% for typing speed.

Table 2

Counselling Psychology's Self-Assessment of Digital

S/N	Digital skills	Poor	Adequate	Good	Excellent
1	Computer literacy	9(4.2%)	71(33.5%)	107(50.5%)	25(11.8%)
2	Internet literacy	5(2.4%)	53(25.0%)	106(50.0%)	48(22.6%)
3	Typing speed	5(2.4%)	71(33.5%)	86(40.6%)	50(23.6%)

Counselling Teachers' Assessment of Usage of Computer Application

When asked about their usage of popular software applications, majority (97.2%) indicated used internet concordance software, followed by e-mail (91.0%), word processing (74.5%), and computer games (72.6%) on a daily basis. Other applications with high levels of daily or near-daily engagement (three to four times per week) included cloud computing tools (84.4%), counselling software (80.6%), video conferencing platforms (69.4%), multimedia applications (61.4%), and blogging tools (60.4%). In contrast, some software types were used far less often. Over half of the respondents indicated that they rarely or never used— or were unfamiliar with—graphics applications (72.6%), text chat platforms (60.8%), online forums, and wikis. This result is presented in Table 3.

Table 3

Counselling Teachers' Assessment of Usage of Computer Application

Programme	Almost everyday	3-4 times per week	1-2 times per week	1-2 times per month	Rarely	Never/I don't know
Word processing	151(71.2%)	23(10.5%)	31(14.6%)	7(3.3%)	0(0.0%)	0(0.0%)
E-mail	158(74.5%)	35(16.5%)	19(9.0%)	0(0.0%)	0(0.0%)	0(0.0%)
Internet	206(97.2%)	6(2.8%)	0(0.0%)	0(0.0%)	0(0.0%)	0(0.0%)
Database	32(15.1%)	13(6.1%)	46(21.7%)	50(23.6%)	56(26.4%)	15(7.1%)
Spreadsheet	15(7.1%)	13(6.1%)	30(14.2%)	116(54.7%)	38(17.9%)	0(0.0%)
Graphics	6(2.8%)	3(1.4%)	32(15.1%)	17(8.0%)	145(68.4%)	9(4.2%)
Website design	205(96.7%)	7(3.3%)	0(0.0%)	0(0.0%)	0(0.0%)	0(0.0%)
Multimedia	97(45.8%)	33(15.6%)	43(20.3%)	39(18.4%)	0(0.0%)	0(0.0%)
Social networking	5(2.4%)	23(10.8%)	119(56.1%)	4(1.9%)	3(1.4%)	58(27.4%)
Counselling software	30(14.1%)	141(66.5%)	16(7.5%)	5(2.4%)	3(1.4%)	17(8.0%)
Concordance software	193(91.0%)	5(2.4%)	5(2.4%)	3(1.4%)	6(2.8%)	0(0.0%)
Blogging	37(17.5%)	91(42.9%)	48(22.6%)	18(8.5%)	9(4.2%)	9(4.2%)
Wiki	6(2.8%)	88(41.5%)	59(27.8%)	17(8.0%)	15(7.1%)	27(12.7%)
Online discussions of forums	5(2.4%)	108(50.9%)	5(2.4%)	77(36.3%)	10(4.7%)	7(3.3%)
Text chatting	0(0.0%)	25(11.8%)	33(15.6%)	25(11.8%)	23(10.8%)	106(50.0%)
Video conferencing	5(2.4%)	142(67.0%)	28(13.2%)	22(10.4%)	10(4.7%)	5(2.4%)
Computer games	154(72.6%)	38(17.9%)	20(9.4%)	0(0.0%)	0(0.0%)	0(0.0%)
Cloud computing	64(30.2%)	115(54.2%)	11(5.2%)	3(1.4%)	8(3.8%)	11(5.2%)

Self-Assessment of Experience With Popular Software Application

When asked about their experience with popular software applications, the results displayed in Table 4 shows that most respondents reported frequent use of certain tools. A large majority (97.2%) used internet concordance software, followed by e-mail (91.0%), word processing (74.5%), and computer games (72.6%) on a daily basis. Other applications with high levels of daily or near-daily engagement (three to four times per week) included cloud computing tools (84.4%), counselling software (80.6%), video conferencing platforms (69.4%), multimedia applications (61.4%), and blogging tools (60.4%).

In contrast, some software types were used far less often. Over half of the respondents indicated that they rarely or never used—or were unfamiliar with—graphics applications (72.6%), text chat platforms (60.8%), online forums, and wikis. These patterns suggest that while teachers are highly engaged with general productivity and communication tools, their interaction with more specialized or collaborative applications is comparatively limited. When asked to self-assess their digital skills, many counselling psychology teachers rated themselves as having intermediate proficiency across a range of applications, with advanced proficiency being the next most common rating (Table 5). Lower ratings were reported for multimedia applications, online video conferencing, online discussions, and spreadsheet use.

Table 4
Self-Assessment of Digital Skills

How would you rate your computer skills on the following	None (1)	Basic (2)	Intermediate (3)	Advanced (4)
E-mail	0(0.0%)	20(9.4%)	135(63.7%)	57(26.9%)
Internet	0(0.0%)	24(11.3%)	154(72.6%)	34(16.0%)
Word processing	0(0.0%)	67(31.6%)	118(55.7%)	27(12.7%)
E-mail (mobile)	13(6.1%)	26(12.3%)	67(31.6%)	106(50.0%)
Presentation software	11(5.2%)	32(15.1%)	147(69.3%)	22(10.4%)
Web search engine	15(7.1%)	23(10.8%)	146(68.9%)	28(13.2%)
Downloading and installing programs	14(6.6%)	63(29.7%)	122(57.5%)	13(6.1%)
Social networking	22(10.4%)	46(21.7%)	94(44.3%)	50(23.6%)
Communications applications	23(10.8%)	71(33.5%)	68(32.1%)	50(23.6%)
Online chart	23(10.8%)	76(35.8%)	91(42.9%)	22(10.4%)
Internet security	21(9.9%)	77(36.3%)	93(43.9%)	21(9.9%)
Multimedia applications	23(10.8%)	53(25.0%)	114(53.8%)	22(10.4%)
Online video conferencing	22(10.4%)	59(27.8%)	110(51.9%)	21(9.9%)
Online discussions	22(10.4%)	62(29.2%)	89(42.0%)	39(18.4%)
Spreadsheet	30(14.2%)	81(38.2%)	78(36.8%)	23(10.8%)
Wiki	30(14.2%)	83(39.2%)	76(35.8%)	23(10.8%)
Database	28(13.2%)	113(53.3%)	55(25.9%)	16(7.5%)
Blog applications	57(26.9%)	68(32.1%)	65(30.7%)	22(10.4%)
Cloud computing	85(40.1%)	62(29.2%)	37(17.5%)	28(13.2%)
Website design	154(72.6%)	39(18.4%)	19(9.0%)	0(0.0%)
Computer games	109(51.4%)	57(26.9%)	30(14.2%)	16(7.5%)

Table 5
Computer-Related Access and Usage

S/N	Questions	Yes (%)	No (%)
1.	Do you have a computer connected to the internet?	58(27.4)	154(72.6)
2.	Do you have an email account outside your smartphone or university account?	25(11.7)	24(187)
3.	Do you use a website?	102(48.)	110(51.9)
4.	Do you have a personal homepage?	15 (7.0)	197(92.9)
5.	Do you understand the basic functions of computer hardware components (e.g CPU and hard disk)?	29 (13.6)	183(86.3)
6.	Do you use keyboard shortcuts?	62 (29.2)	150(70.8)
7.	Do you use a computer connected to the internet at university?	29 (13.7)	183(86.3)
8.	Do you use a computer for teaching purposes?	47(22.2)	165(77.8)
9.	Do you find it easy to learn something by reading it from a computer screen?	62(29.2)	150(70.8)
10.	Do you use CD-ROMs to supplement your teaching?	16 (7.5)	196(92.5)
11.	Do you use websites to supplement your teaching?	42(19.8)	170(80.1)

Integration of Computers Into Teaching of Counselling Courses

Integration of computers into teaching requires a broad spectrum of skills, ranging from basic literacy to advanced technical expertise. As shown in Table 6, the responses from counselling psychology teachers indicate that many lack certain skills essential for the effective use of computers, related equipment, and software in both personal and professional contexts. Most respondents reported being able to carry out only fundamental tasks such as properly turning on and shutting down a computer (95.8%), starting and exiting a program (87.3%), printing documents using a printer (75.5%), creating a basic Microsoft Word document (56.6%), sending and receiving email attachments (94.3%), and searching for information using a web search engine (67.9%). However, a majority indicated they could not perform more advanced tasks, such as transferring files from a hard drive to a USB drive, downloading and saving files from the web, using online video conferencing tools, recording and editing audio, or creating simple databases using Microsoft Access or Excel.

Table 6
Integration of Technology Into Teaching Counselling Courses

Questions	Yes (%)	No (%)
Can you properly turn on and shutdown a computer?	201(95.8)	11(5.1)
Can you start and exit a computer program?	185 (87.3)	27 (12.7)
Can you print a document using a printer?	160(75.5)	52(24.5)
Can you create a basic Microsoft Word document?	120(56.6)	92(43.4)
Can you send and receive attachments through email messages?	200(94.3)	12(5.7)
Can you search for information using a web search engine?	144(67.9)	68(32.1)
Can you move a file from a hard drive to a USB drive?	82(38.7)	130 (61.3)
Can you download and save files from the web?	116(54.7)	96(45.2)
Can you change the font style and size in a document?	67(31.6)	145(68.4)
Can you change monitor brightness and contrast?	62(29.2)	150(70.8)
Can you minimize, maximize and move windows on the desktop?	88(41.5)	124(58.5)

Can you perform file management including deleting and renaming files?	77(36.3)	135(63.7)
Can you copy, cut and paste inside a document?	87(41.0)	125 (58.9)
Can you create a simple presentation using Power Point?	67(31.6)	147(68.4)
Can you install a software program?	34(16.0)	178 (83.9)
Can you write files onto a CD?	43(20.3)	169(79.7)
Can you resize a photograph?	24(11.3)	188(88.6)
Can you create a basic Excel spread sheet?	58(27.4)	154(72)
Can you scan a disc or file for viruses?	87(41.0)	125(58.9)
Can you use a video conferencing tool on the web?	56(26.4)	156(73.6)
Can you record and edit sounds?	17(8.0)	195(91.9)
Can you create a simple database using Access or Excel	42(19.8)	170(80.1)
Can you create a simple web page?	12(5.6)	200(94.3)

Factors Influencing the Use of Computers in Teaching Counselling Courses

Several factors influence computer use, including user attitudes, prior experience, access to technology, and perceptions of its usefulness. Respondents cited lack of teachers' computer skills and limited access to computers. This finding, presented in Table 7.

Table 7

Factors Influencing the Use of Computers in Teaching Counselling Courses

S/N	Factors	Frequency	(%)
1	Limited time	28	13.2
2	Limited access to the internet	39	18.4
3	Lack of teachers' computer skill	43	20.3
4	Lack of interest of teachers	8	3.8
5	Lack of university support	15	7.1
6	Curricular restrictions	0	0
7	Limited facilities	12	5.6
8	Limited knowledge of computer	37	17.5
9	Lack of computer skills of students	13	6.1
10	Lack of students' interest	9	4.2
11	Lack of computer-based materials	5	2.4
12	Inflexible teaching methods	3	1.4
13	Others (please specify)	0	0

Teacher's Perceptions of Computers and the Use of Technology for Teaching

As presented in Table 8, overall, teachers demonstrated very positive attitudes toward integrating technology into their classrooms. Most (91.1%) reported enjoying the use of computers, 91.0% felt comfortable using them, and an equal proportion (91.1%) expressed willingness to learn more. Similarly, the majority (88.6%) agreed that it was important to learn how to use computers, while 76.9% believed that incorporating computers could enhance their teaching. Additionally, 72.2% felt that computers could make teaching and learning more engaging.

Table 8*Teacher's Perceptions of Computers and the Use of Technology for Teaching*

S/N	Answer Options	Strongly Agree (1)	Agree (2)	Uncertain (3)	Disagree (4)	Strongly Disagree (5)
1.	I enjoy using computer	79(37.3%)	114(53.8%)	13(6.1%)	3(1.4%)	3(1.4%)
2.	I feel comfortable using computers	81(38.2%)	112(52.8%)	13(6.1%)	3(1.4%)	3(1.4%)
3.	I'm willing to learn more about computers	79(37.3%)	114(53.8%)	13(6.1%)	3(1.4%)	3(1.4%)
4.	I think computers are difficult to use	2(0.9%)	5(2.4%)	15(7.1%)	114(53.8%)	76(35.8%)
5.	I feel threatened when others talk about computers	5(2.4%)	10(4.7%)	16(7.5 %)	110(51.9%)	71(33.5%)
6.	I believe that it is important for me to learn how to use computers	80(37.7%)	108(50.9%)	15(7.1%)	5(2.4%)	4(1.9%)
7.	I would like to use computers in the classroom	65(30.7%)	56(26.4%)	78(36.8%)	7(3.3%)	6(2.8%)
8.	I feel that my teaching could be improved by using computers	65(30.7%)	98(46.2%)	49(23.1)	0(0.0%)	0(0.0%)
9.	I think that computers can make learning	65(30.7%)	88(41.5%)	32(15.1)	8(3.8%)	19(9.0%)
10.	I believe that training in computer-assisted counselling be included in counsellor education	85(40.1%)	93(43.9%)	34(16.0)	0(0.0%)	0(0.0%)

Discussion**Experience Using Computers in the Classroom**

This study assessed the digital literacy of counselling psychology teachers in universities across Southwestern Nigeria. Findings revealed that, irrespective of gender, age, educational status, type of university, or years of teaching experience, fewer than half of the respondents reported substantial experience using computers in the classroom for counselling courses. This indicates a significant gap in the practical skills required for effective technology integration in teaching. These results align with previous research (Atomatofa, 2025; Nwuke & Yellowe, 2025) which identified limited computer literacy as major barriers to technology adoption in higher education. The findings highlight the urgent need for targeted professional development, improved and deliberate strategies to build teachers' competence in using digital tools to enhance the delivery of counselling psychology instruction.

Types of Computers Owned by the Counselling Psychology Teachers

The result showed that large majority had a notebook PC, while more than half owned a tablet. Fewer than half reported having a desktop PC. The types of digital devices owned by teachers have important implications for teaching counselling psychology courses. High ownership of notebook PCs and tablets suggests that teachers have access to portable and flexible tools that can support classroom instruction, preparation of teaching materials, and online engagement. However, the relatively low ownership of desktop PCs, smartphones, and smart devices may limit opportunities for certain activities such as mobile learning, app-based instruction, or multimedia production. Limited access to advanced or versatile devices could also affect the ability of teachers to deliver interactive, collaborative, and technology-enhanced lessons, particularly in hybrid or remote learning environments. This result corroborates previous studies, such as Dele-Ajayi et al. (2021) and Tondeur et al. (2018) which reported similarly that educators in higher education often have access to personal digital devices.

How Counselling Psychology Teachers Acquired Their Digital Competencies

The outcomes suggest that majority of teachers relied heavily on personal initiative and peer support to build their digital competencies—an approach that may contribute to uneven skill development across the profession. This finding corroborates studies (Adegoke et al., 2019; Ning & Danso, 2025) which reported that educators frequently acquire computer skills through self-learning and informal networks, with formal professional development playing a comparatively smaller role. There is a risk of uneven skill levels. Some teachers may advance quickly, while others may struggle without structured guidance. Need for enhanced formal training:

Counselling Psychology Teachers' Self-Assessment of Computer and Internet Usage

The finding from this study collaborates earlier researches (Abbiati et al., 2025; Afari et al., 2023) which reported that though computers are available for educators they hardly adopt the technology for educational purpose. The outcome shows that majority of the counselling psychology teachers rated themselves as having intermediate proficiency across a range of applications. The implications of this pattern are twofold. First, it reflects a strong orientation toward digital tools that support basic communication, content creation, and administrative tasks, rather than those designed for advanced collaboration, creative production, or subject-specific instructional innovation. Second, the limited use of specialized applications may indicate gaps in training, exposure, or perceived relevance to counselling psychology teaching.

Counselling Psychology' Competence With Specific Technical Skills and Hardware Use

Another notable finding from this study is that many teachers handling counselling psychology courses may lack the skills needed to effectively integrate these collaborative and interactive tools into their teaching. The importance of wikis, forums, and blogs in the context of counselling education cannot be overstated: wikis facilitate collaborative content creation and knowledge organization; forums enable structured discussions and peer support; while blogs provide a platform for personal reflection, sharing professional insights, and fostering community engagement. This pattern corroborates with the work of Malakul and Sangkawetai, (2024) who found that though educators are proficient in basic productivity and

communication tools, they often demonstrate limited competence or confidence in using more specialized online platforms that promote collaborative learning and professional interaction.

Counselling Psychology Teacher's Integration of Technology Into Teaching and Learning

The study found that most counselling psychology teachers rarely use digital tools in their teaching. Limited skills in applications such as video conferencing, file sharing, and data management constrain opportunities for interactive, technology-enhanced learning and may leave graduates underprepared for the digital demands of modern counselling practice. Similar studies attribute this gap to insufficient training, low confidence, and inadequate institutional support (Abbiati et al., 2025; Afari et al., 2023).

Factors Influencing the Use of Computers in Teaching Counselling Courses

The study found that computer use in teaching is shaped by factors such as attitudes, prior experience, access, and perceived usefulness, with computer anxiety and low confidence emerging as key barriers. The most common obstacles cited were inadequate skills and limited knowledge of computers, echoing earlier research linking low competence and confidence to poor technology integration (Gómez-Fernández & Mediavilla, 2022; Ivanishchenko et al., 2024). Targeted training and mentorship could address these gaps and enhance technology use in counselling education.

Counselling Psychology Teachers' Perceptions of Computers and the Use of Technology for Teaching

Teachers' overwhelmingly positive attitudes toward technology—marked by enjoyment, comfort, and willingness to learn—suggest a strong basis for advancing digital integration in counselling education. Recognising the benefits of technology for engagement and effectiveness, they are likely to embrace training initiatives. This aligns with Ocak and Karafil (2021) that teacher attitudes strongly influence technology adoption. Harnessing this readiness through targeted development and institutional support can better prepare students for digitally driven counselling practice.

Conclusion

The study concluded that while counselling psychology teachers generally possess basic computer skills, many lack advanced competencies needed for technology-enhanced learning, telecounselling, and digital resource management. Limited skills and knowledge, alongside competence-related and attitudinal barriers, hinder effective integration. However, their positive attitudes toward technology present an opportunity. Targeted digital literacy, training, mentorship, and institutional support could bridge these gaps, fostering innovative teaching, equitable access, and better preparation for technology-driven practice.

Recommendations

The following recommendations emerged from the study:

- i. There is need for the university staff development departments to conduct continuous professional development (CPD) to bridge the gap between basic literacy and advanced application skills tailored to counselling psychology.
- ii. The government should implement comprehensive digital Literacy policies and mandate institutions to support digital tool integration.
- iii. The universities should establish clear guidelines for digital resource usage and staff accountability.
- iv. The universities should expand internet coverage and improve bandwidth reliability across all departments.
- v. Schools should encourage knowledge sharing among teachers on technology integration strategies.
- vi. Counselling educational curricula need to be updated to include comprehensive digital skills modules which will equip future counsellors with the competencies they need to function effectively in the digital era.

References

- Abbiati, G., Azzolini, D., Piazzalunga, D., Balanskat, A., Engelhardt, K., Rettore, E., & Wastiau, P. (2025). Exploring the potential of self-assessment for teachers' development of ICT competencies and beliefs. *Educational Evaluation and Policy Analysis, Advance online publication*. <https://doi.org/10.3102/01623737241310449>
- Adegoke, J. M., Akano, O. T., & Owolabi, Y. T. (2019). Teachers' use of ICT in the teaching of Economics in secondary schools in Oyun Local Government, Kwara State. *Al-Hikmah Journal of Educational Management and Counselling, 1*(2), 107–113.
- Aduwa-Ogiegbaen, S. E., & Iyamu, E. O. S. (2005). Using information and communication technology in secondary schools in Nigeria: Problems and prospects. *Educational Technology & Society, 8*(1), 104–112.
- Afari, E., Eksail, F. A. A., & Khine, M. S. (2023). Computer self-efficacy and ICT integration in education: Structural relationship and mediating effects. *Education and Information Technologies, 28*, 12021–12037. <https://doi.org/10.1007/s10639-023-11679-8>
- Arifin, Z., Farkhan, M., Tasjuddin, M., Rahmadhani, S., & Hanifah Salsabila, U. (2025). Digital literacy as a fundamental competency in the 21st century education. *Linguanusa: Social Humanities, Education and Linguistic, 2*(3), 18–32. <https://doi.org/10.63605/ln.v2i3.68>
- Asemewalen, N. O. (2025). Dilapidating state of education in Nigeria and the role of computer technology. *Journal of Education Research and Library Practice, 7*(8). <https://doi.org/10.70382/ajerlp.v7i8.016>
- Atomatofa, R. O. (2025). Integration of ICT tools in teaching basic science in secondary schools in Nigeria. *IOSR Journal of Research & Method in Education (IOSR-JRME), 15*(2, Ser. 1), 50–55. <https://doi.org/10.9790/7388-1502015055>
- Ayodeji, M. B. (2025). Assessment of digital literacy and technology utilisation among secondary school students in Ilaro Metropolis, Ogun State, Nigeria. *Rima International Journal of Education, 4*(1), 86–96.
- Bawden, D. (2008). Origins and concepts of digital literacy. In C. Lankshear & M. Knobel (Eds.), *Digital literacies: Concepts, policies and practices* (pp. 17–32). New York, NY: Peter Lang.
- Bernardes, T. S., & de Andrade Neto, A. S. (2021). Technological pedagogical content knowledge (TPACK) in pre-service and in-service chemistry teacher training: A systematic literature review. *Research, Society and Development, 10*(3), 611–620. <https://doi.org/10.33448/rsd-v10i3.13211>
- Carretero, S., Vuorikari, R., & Punie, Y. (2017). *DigComp 2.1: The digital competence framework for citizens with eight proficiency levels and examples of use* (JRC Science for Policy Report, JRC106281). Luxembourg: Publications Office of the European Union. <https://doi.org/10.2760/38842>

- Chen, A. (2015, June 3). The 9 C's of digital literacy. *Alice in Wonder Tech*. Retrieved from <https://alicewondertech.com/the-9-cs-of-digital-literacy>
- Dele-Ajayi, O., Fasae, O. D., & Okoli, A. (2021). Teachers' concerns about integrating information and communication technologies in the classrooms. *PLOS ONE*, 16(5), e0249703. <https://doi.org/10.1371/journal.pone.0249703>
- De Simone, M., & Manolio, F. A. (2024). *Digital skills in Nigeria: A summary of the population's skills and the availability of digital infrastructure in schools* (Policy Note). World Bank. Retrieved from <https://thedocs.worldbank.org/en/doc/a607bb6e3b76d2be0f3db8db34dcf73e-0140022025/original/1Nigeria-TF0C2441-Digital-Skills-Report-final.pdf>
- Eshet-Alkalai, Y., & Amichai-Hamburger, Y. (2004). Digital literacy: A conceptual framework for survival skills in the digital era. *Journal of Educational Multimedia and Hypermedia*, 13(1), 93–106.
- Gómez-Fernández, N., & Mediavilla, M. (2022). Factors influencing teachers' use of ICT in class: Evidence from a multilevel logistic model. *Mathematics*, 10(5), 799. <https://doi.org/10.3390/math10050799>
- Gruszczynska, A., Merchant, G., & Pountney, R. (2013). Digital futures in teacher education: Exploring open approaches towards digital literacy. *Electronic Journal of e-Learning*, 11(3), 193–206.
- Ivanishchenko, K., Busana, G., & Reuter, R. A. P. (2024). Understanding factors affecting fundamental school teachers' use of technology in Luxembourg through a survey study. *Heliyon*, 10(7), e28704. <https://doi.org/10.1016/j.heliyon.2024.e28704>
- Löchner, J., Carlbring, P., Schuller, B., Torous, J., & Sander, L. B. (2025). Digital interventions in mental health: An overview and future perspectives. *Internet Interventions*, 40, 100824. <https://doi.org/10.1016/j.invent.2025.100824>
- Malakul, S., & Sangkawetai, C. (2024). Evaluating computer science teaching competence: Teachers' self-efficacy and professional development. *Discover Education*, 3, 257. <https://doi.org/10.1007/s44217-024-00363-0>
- Martin, A. (2006). A European framework for digital literacy. *Nordic Journal of Digital Literacy*, 1(2), 151–161.
- Ng, W. (2012). Can we teach digital natives' digital literacy? *Computers & Education*, 59(3), 1065–1078. <https://doi.org/10.1016/j.compedu.2012.04.016>
- Ning, Y., & Danso, S. D. (2025). Assessing pedagogical readiness for digital innovation: A mixed-methods study. *arXiv preprint arXiv:2502.15781*. Retrieved from <https://arxiv.org/abs/2502.15781>
- Nwuke, T. J., & Yellowe, A. N. (2025). Managing education in Nigeria and the emerging technologies in the 21st century classroom. *World Journal of Innovation and Modern Technology*, 9(1), 1–14.

- Ocak, G., & Karafil, B. (2021). Teachers' perceptions of their technological competence in learning and teaching process. *Malaysian Online Journal of Educational Technology*, 9(4), 14–30. <http://dx.doi.org/10.52380/mojet.2021.9.4.221>
- Ofole, N. M., & Ohakwe, P. N. (2021). Therapeutic outcome of self-control and social interaction interventions on negative body image among in-school adolescents with low health literacy in Southwest Nigeria. *International Journal of Education and Literacy Studies*, 9(4), 238–246. <https://doi.org/10.7575/aiac.ijels.v.9n.4p.238>
- Son, J.-B., Robb, T., & Charismiadj, I. (2011). Computer literacy and competency: A survey of Indonesian teachers of English as a foreign language. *CALL-EJ*, 12(1), 26–42. Retrieved from http://callej.org/journal/12-1/Son_2011.pdf
- Spires, H., & Bartlett, M. (2012). *Digital literacies and learning: Designing a path forward*. Raleigh, NC: Friday Institute for Educational Innovation, North Carolina State University.
- Spires, H. A., Paul, C. M., & Kerkhoff, S. N. (2019). Digital literacy for the 21st century. In K. C. Kurbanoglu, S. Špiranec, E. Grassian, D. Mizrahi, & L. Roy (Eds.), *Advanced methodologies and technologies in library science, information management, and scholarly inquiry* (pp. 12–21). Hershey, PA: IGI Global.
- Torous, J., Linardon, J., Goldberg, S. B., Sun, S., Bell, I. H., Nicholas, J., Hassan, L., Hua, Y., Milton, A., & Firth, J. (2025). The evolving field of digital mental health: Current evidence and implementation issues for smartphone apps, generative artificial intelligence, and virtual reality. *World Psychiatry*, 24(2), 156–174. <https://doi.org/10.1002/wps.21299>
- Tran, D. D., Phan, T. T., Vu, T. N. Q., La, T. D., & Pham, V. K. (2024). Digital competence of lecturers and its impact on student learning value in higher education. *Heliyon*, 10(17), e37318. <https://doi.org/10.1016/j.heliyon.2024.e37318>
- UNESCO Institute for Statistics. (2018). *A Global Framework of Reference on Digital Literacy Skills for Indicator 4.4.2 [Framework]*. UNESCO. Retrieved from <https://unevoc.unesco.org/home/TVETipedia+glossary/lang=en/show=term/term=Digital+literacy>